



Sequence Listing

<10> Chen, Jian
Filvaroff, Ellen
Fong, Sherman
Goddard, Audrey
Godowski, Paul L.
Grimaldi, J.Christopher
Gurney, Austin
Li, Hanzhong
Hillan, Kenneth J.
Hymowitz, Sarah
Tumas, Daniel
Starovasnik, Melissa.
VanLookeren, Menno
Vandlen, Richard
Watanabe, Colin
Williams, P.Mickey
Wood, William
Yansura, Daniel

<120> IL-17 HOMOLOGOUS POLYPEPTIDES AND THERAPEUTIC USES THEREOF

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Cys Leu Cys Leu Gly Cys Val Asn Pro Phe Thr Met Gln Glu Asp
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35 40 45

Gln Ala Pro Pro His Leu Leu Ala Arg Gly Ala Lys Trp Gly Gln
50 55 60

Ala Leu Pro Val Ala Leu Val Ser Ser Leu Glu Ala Ala Ser His
65 70 75

Arg Gly Arg His Glu Arg Pro Ser Ala Thr Thr Gln Cys Pro Val
80 85 90

Leu Arg Pro Glu Glu Val Leu Glu Ala Asp Thr His Gln Arg Ser
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Ile Ser Pro Trp Arg Tyr Arg Val Asp Thr Asp Glu Asp Arg Tyr
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Pro Gln Lys Leu Ala Phe Ala Glu Cys Leu Cys Arg Gly Cys Ile
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Leu Leu Gln Ser Leu Leu Val Leu Arg Arg Arg Pro Cys Ser Arg
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35 40 45

Asp Thr Ser Glu Glu Leu Leu Arg Trp Ser Thr Val Pro Val Pro
50 55 60

Pro Leu Glu Pro Ala Arg Pro Asn Arg His Pro Glu Ser Cys Arg
65 70 75

Ala Ser Glu Asp Gly Pro Leu Asn Ser Arg Ala Ile Ser Pro Trp
80 85 90

Arg Tyr Glu Leu Asp Arg Asp Leu Asn Arg Leu Pro Gln Asp Leu
95 100 105

Tyr His Ala Arg Cys Leu Cys Pro His Cys Val Ser Leu Gln Thr
110 115 120

Gly Ser His Met Asp Pro Arg Gly Asn Ser Glu Leu Leu Tyr His
125 130 135

Asn Gln Thr Val Phe Tyr Arg Arg Pro Cys His Gly Glu Lys Gly
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Thr His Lys Gly Tyr Cys Leu Glu Arg Arg Leu Tyr Arg Val Ser
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Gly Pro Arg Glu Gln Ala Arg Asn Ala Ser Cys Pro Ala Gly Gly
65 70 75

Arg Pro Gly Asp Arg Arg Phe Arg Pro Pro Thr Asn Leu Arg Ser
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Val Ser Pro Trp Ala Tyr Arg Ile Ser Tyr Asp Pro Ala Arg Tyr
95 100 105

Pro Arg Tyr Leu Pro Glu Ala Tyr Cys Leu Cys Arg Gly Cys Leu
110 115 120

Thr Gly Leu Phe Gly Glu Glu Asp Val Arg Phe Arg Ser Ala Pro
125 130 135

Val Tyr Met Pro Thr Val Val Leu Arg Arg Thr Pro Ala Cys Ala
140 145 150

Gly Gly Arg Ser Val Tyr Thr Glu Ala Tyr Val Thr Ile Pro Val
155 160 165

Gly Cys Thr Cys Val Pro Glu Pro Glu Lys Asp Ala Asp Ser Ile
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35 40 45

Ser Cys Pro Pro Val Pro Gly Gly Ser Met Lys Leu Asp Ile Gly
50 55 60

Ile Ile Asn Glu Asn Gln Arg Val Ser Met Ser Arg Asn Ile Glu
65 70 75

Ser Arg Ser Thr Ser Pro Trp Asn Tyr Thr Val Thr Trp Asp Pro
80 85 90

Asn Arg Tyr Pro Ser Glu Val Val Gln Ala Gln Cys Arg Asn Leu
95 100 105

Gly Cys Ile Asn Ala Gln Gly Lys Glu Asp Ile Ser Met Asn Ser
110 115 120

Val Pro Ile Gln Gln Glu Thr Leu Val Val Arg Arg Lys His Gln
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Ser Pro Glu Trp Met Leu Gln His Asp Leu Ile Pro Gly Asp Leu
 35 40 45

Arg Asp Leu Arg Val Glu Pro Val Thr Thr Ser Val Ala Thr Gly
 50 55 60

Asp Tyr Ser Ile Leu Met Asn Val Ser Trp Val Leu Arg Ala Asp
 65 70 75

Ala Ser Ile Arg Leu Leu Lys Ala Thr Lys Ile Cys Val Thr Gly
 80 85 90

Lys Ser Asn Phe Gln Ser Tyr Ser Cys Val Arg Cys Asn Tyr Thr
 95 100 105

Glu Ala Phe Gln Thr Gln Thr Arg Pro Ser Gly Gly Lys Trp Thr
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Phe Ser Tyr Ile Gly Phe Pro Val Glu Leu Asn Thr Val Tyr Phe
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Ile Gly Ala His Asn Ile Pro Asn Ala Asn Met Asn Glu Asp Gly
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Pro Ser Met Ser Val Asn Phe Thr Ser Pro Gly Cys Leu Asp His
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Ile Met Lys Tyr Lys Lys Cys Val Lys Ala Gly Ser Leu Trp
 170 175 180

Asp Pro Asn Ile Thr Ala Cys Lys Lys Asn Glu Glu Thr Val Glu
 185 190 195

Val Asn Phe Thr Thr Pro Leu Gly Asn Arg Tyr Met Ala Leu
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Ile Gln His Ser Thr Ile Ile Gly Phe Ser Gln Val Phe Glu Pro
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Cys	Pro	Gln	Thr	Gly	Val	Pro	Phe	Pro	Leu	Asp	Asn	Asn	Lys	Ser
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His	Thr	Ile	Cys	Tyr	Phe	Thr	Glu	Phe	Leu	Gln	Asn	His	Cys	Arg
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Ser	Glu	Val	Ile	Leu	Glu	Lys	Trp	Gln	Lys	Lys	Lys	Ile	Ala	Glu
					365				370				375	
Met	Gly	Pro	Val	Gln	Trp	Leu	Ala	Thr	Gln	Lys	Lys	Ala	Ala	Asp
					380				385				390	
Lys	Val	Val	Phe	Leu	Leu	Ser	Asn	Asp	Val	Asn	Ser	Val	Cys	Asp
					395				400				405	
Gly	Thr	Cys	Gly	Lys	Ser	Glu	Gly	Ser	Pro	Ser	Glu	Asn	Ser	Gln
					410				415				420	
Asp	Leu	Phe	Pro	Leu	Ala	Phe	Asn	Leu	Phe	Cys	Ser	Asp	Leu	Arg
					425				430				435	
Ser	Gln	Ile	His	Leu	His	Lys	Tyr	Val	Val	Val	Tyr	Phe	Arg	Glu
					440				445				450	
Ile	Asp	Thr	Lys	Asp	Asp	Tyr	Asn	Ala	Leu	Ser	Val	Cys	Pro	Lys
					455				460				465	
Tyr	His	Leu	Met	Lys	Asp	Ala	Thr	Ala	Phe	Cys	Ala	Glu	Leu	Leu
					470				475				480	
His	Val	Lys	Gln	Gln	Val	Ser	Ala	Gly	Lys	Arg	Ser	Gln	Ala	Cys
					485				490				495	
His	Asp	Gly	Cys	Cys	Ser	Leu								
					500									

<211> 2380
<212> DNA
<213> Homo Sapien

<400> 13
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<210> 14
<211> 705
<212> PRT
<213> Homo Sapien

<400> 14
Met Pro Val Pro Trp Phe Leu Leu Ser Leu Ala Leu Gly Arg Ser
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Pro Val Val Leu Ser Leu Glu Arg Leu Val Gly Pro Gln Asp Ala
20 25 30

Thr His Cys Ser Pro Gly Leu Ser Cys Arg Leu Trp Asp Ser Asp
35 40 45

Ile Leu Cys Leu Pro Gly Asp Ile Val Pro Ala Pro Gly Pro Val

50	55	60
Leu Ala Pro Thr His Leu Gln Thr Glu	Leu Val	Leu Arg Cys Gln
65	70	75
Lys Glu Thr Asp Cys Asp Leu Cys	Leu Arg Val Ala Val His Leu	
80	85	90
Ala Val His Gly His Trp Glu	Glu Pro Glu Asp Glu Glu Lys	Phe
95	100	105
Gly Gly Ala Ala Asp Ser Gly Val Glu	Glu Pro Arg Asn Ala Ser	
110	115	120
Leu Gln Ala Gln Val Val Leu Ser Phe	Gln Ala Tyr Pro Thr Ala	
125	130	135
Arg Cys Val Leu Leu Glu Val Gln Val	Pro Ala Ala Leu Val Gln	
140	145	150
Phe Gly Gln Ser Val Gly Ser Val Val	Tyr Asp Cys Phe Glu Ala	
155	160	165
Ala Leu Gly Ser Glu Val Arg Ile Trp	Ser Tyr Thr Gln Pro Arg	
170	175	180
Tyr Glu Lys Glu Leu Asn His Thr Gln	Gln Leu Pro Ala Leu Pro	
185	190	195
Trp Leu Asn Val Ser Ala Asp Gly Asp	Asn Val His Leu Val Leu	
200	205	210
Asn Val Ser Glu Glu Gln His Phe Gly	Leu Ser Leu Tyr Trp Asn	
215	220	225
Gln Val Gln Gly Pro Pro Lys Pro Arg	Trp His Lys Asn Leu Thr	
230	235	240
Gly Pro Gln Ile Ile Thr Leu Asn His	Thr Asp Leu Val Pro Cys	
245	250	255
Leu Cys Ile Gln Val Trp Pro Leu Glu	Pro Asp Ser Val Arg Thr	
260	265	270
Asn Ile Cys Pro Phe Arg Glu Asp Pro	Arg Ala His Gln Asn Leu	
275	280	285
Trp Gln Ala Ala Arg Leu Arg Leu	Leu Thr Leu Gln Ser Trp Leu	
290	295	300
Leu Asp Ala Pro Cys Ser Leu Pro Ala	Glu Ala Ala Leu Cys Trp	
305	310	315
Arg Ala Pro Gly Gly Asp Pro Cys Gln	Pro Leu Val Pro Pro Leu	
320	325	330
Ser Trp Glu Asn Val Thr Val Asp Lys	Val Leu Glu Phe Pro Leu	
335	340	345

Leu Lys Gly His Pro Asn Leu Cys Val Gln Val Asn Ser Ser Glu
 350 360

 Lys Leu Gln Leu Gln Glu Cys Leu Trp Ala Asp Ser Leu Gly Pro
 365 370 375

 Leu Lys Asp Asp Val Leu Leu Leu Glu Thr Arg Gly Pro Gln Asp
 380 385 390

 Asn Arg Ser Leu Cys Ala Leu Glu Pro Ser Gly Cys Thr Ser Leu
 395 400 405

 Pro Ser Lys Ala Ser Thr Arg Ala Ala Arg Leu Gly Glu Tyr Leu
 410 415 420

 Leu Gln Asp Leu Gln Ser Gly Gln Cys Leu Gln Leu Trp Asp Asp
 425 430 435

 Asp Leu Gly Ala Leu Trp Ala Cys Pro Met Asp Lys Tyr Ile His
 440 445 450

 Lys Arg Trp Ala Leu Val Trp Leu Ala Cys Leu Leu Phe Ala Ala
 455 460 465

 Ala Leu Ser Leu Ile Leu Leu Lys Lys Asp His Ala Lys Gly
 470 475 480

 Trp Leu Arg Leu Leu Lys Gln Asp Val Arg Ser Gly Ala Ala Ala
 485 490 495

 Arg Gly Arg Ala Ala Leu Leu Tyr Ser Ala Asp Asp Ser Gly
 500 505 510

 Phe Glu Arg Leu Val Gly Ala Leu Ala Ser Ala Leu Cys Gln Leu
 515 520 525

 Pro Leu Arg Val Ala Val Asp Leu Trp Ser Arg Arg Glu Leu Ser
 530 535 540

 Ala Gln Gly Pro Val Ala Trp Phe His Ala Gln Arg Arg Gln Thr
 545 550 555

 Leu Gln Glu Gly Gly Val Val Val Leu Leu Phe Ser Pro Gly Ala
 560 565 570

 Val Ala Leu Cys Ser Glu Trp Leu Gln Asp Gly Val Ser Gly Pro
 575 580 585

 Gly Ala His Gly Pro His Asp Ala Phe Arg Ala Ser Leu Ser Cys
 590 595 600

 Val Leu Pro Asp Phe Leu Gln Gly Arg Ala Pro Gly Ser Tyr Val
 605 610 615

 Gly Ala Cys Phe Asp Arg Leu Leu His Pro Asp Ala Val Pro Ala
 620 625 630

 Leu Phe Arg Thr Val Pro Val Phe Thr Leu Pro Ser Gln Leu Pro

635	640	645
Asp Phe Leu Gly Ala Leu Gln Gln Pro Arg Ala Pro Arg Ser Gly		
650	655	660
Arg Leu Gln Glu Arg Ala Glu Gln Val Ser Arg Ala Leu Gln Pro		
665	670	675
Ala Leu Asp Ser Tyr Phe His Pro Pro Gly Thr Pro Ala Pro Gly		
680	685	690
Arg Gly Val Gly Pro Gly Ala Gly Pro Gly Ala Gly Asp Gly Thr		
695	700	705

<210> 15
<211> 2138
<212> DNA
<213> Homo Sapien

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<210> 16

<211> 667

<212> PRT

<213> Homo Sapien

<400> 16

Met	Gly	Ser	Ser	Arg	Lle	Ala	Ala	Lle	Lle	Lle	Pro	Lle	Lle	Lle
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Ile Val Ile Asp Lle Ser Asp Ser Ala Gly Ile Gly Phe Arg His

20	25	30
Leu Pro His Trp Asn Thr Arg Cys Pro	Leu Ala Ser His Thr Asp	
35	40	45
Asp Ser Phe Thr Gly Ser Ser Ala Tyr Ile Pro Cys Arg Thr Trp		
50	55	60
Trp Ala Leu Phe Ser Thr Lys Pro Trp Cys Val Arg Val Trp His		
65	70	75
Cys Ser Arg Cys Leu Cys Gln His Leu Leu Ser Gly Gly Ser Gly		
80	85	90
Leu Gln Arg Gly Leu Phe His Leu Leu Val Gln Lys Ser Lys Lys		
95	100	105
Ser Ser Thr Phe Lys Phe Tyr Arg Arg His Lys Met Pro Ala Pro		
110	115	120
Ala Gln Arg Lys Leu Leu Pro Arg Arg His Leu Ser Glu Lys Ser		
125	130	135
His His Ile Ser Ile Pro Ser Pro Asp Ile Ser His Lys Gly Leu		
140	145	150
Arg Ser Lys Arg Thr Gln Pro Ser Asp Pro Glu Thr Trp Glu Ser		
155	160	165
Leu Pro Arg Leu Asp Ser Gln Arg His Gly Gly Pro Glu Phe Ser		
170	175	180
Phe Asp Leu Leu Pro Glu Ala Arg Ala Ile Arg Val Thr Ile Ser		
185	190	195
Ser Gly Pro Glu Val Ser Val Arg Leu Cys His Gln Trp Ala Leu		
200	205	210
Glu Cys Glu Glu Leu Ser Ser Pro Tyr Asp Val Gln Lys Ile Val		
215	220	225
Ser Gly Gly His Thr Val Glu Leu Pro Tyr Glu Phe Leu Leu Pro		
230	235	240
Cys Leu Cys Ile Glu Ala Ser Tyr Leu Gln Glu Asp Thr Val Arg		
245	250	255
Arg Lys Lys Cys Pro Phe Gln Ser Trp Pro Glu Ala Tyr Gly Ser		
260	265	270
Asp Phe Trp Lys Ser Val His Phe Thr Asp Tyr Ser Gln His Thr		
275	280	285
Gln Met Val Met Ala Leu Thr Leu Arg Cys Pro Leu Lys Leu Glu		
290	295	300
Ala Ala Leu Cys Gln Arg His Asp Trp His Thr Leu Cys Lys Asp		
305	310	315

Leu Pro Asn Ala Thr Ala Arg Glu Ser Asp Gly Trp Tyr Val Leu
 320 325 330

 Glu Lys Val Asp Leu His Pro Gln Leu Cys Phe Lys Phe Ser Phe
 335 340 345

 Gly Asn Ser Ser His Val Glu Cys Pro His Gln Thr Gly Ser Leu
 350 355 360

 Thr Ser Trp Asn Val Ser Met Asp Thr Gln Ala Gln Gln Leu Ile
 365 370 375

 Leu His Phe Ser Ser Arg Met His Ala Thr Phe Ser Ala Ala Trp
 380 385 390

 Ser Leu Pro Gly Leu Gly Gln Asp Thr Leu Val Pro Pro Val Tyr
 395 400 405

 Thr Val Ser Gln Ala Arg Gly Ser Ser Pro Val Ser Leu Asp Leu
 410 415 420

 Ile Ile Pro Phe Leu Arg Pro Gly Cys Cys Val Leu Val Trp Arg
 425 430 435

 Ser Asp Val Gln Phe Ala Trp Lys His Leu Leu Cys Pro Asp Val
 440 445 450

 Ser Tyr Arg His Leu Gly Leu Leu Ile Leu Ala Leu Leu Ala Leu
 455 460 465

 Leu Thr Leu Leu Gly Val Val Leu Ala Leu Thr Cys Arg Arg Pro
 470 475 480

 Gln Ser Gly Pro Gly Pro Ala Arg Pro Val Leu Leu Leu His Ala
 485 490 495

 Ala Asp Ser Glu Ala Gln Arg Arg Leu Val Gly Ala Leu Ala Glu
 500 505 510

 Leu Leu Arg Ala Ala Leu Gly Gly Arg Asp Val Ile Val Asp
 515 520 525

 Leu Trp Glu Gly Arg His Val Ala Arg Val Gly Pro Leu Pro Trp
 530 535 540

 Leu Trp Ala Ala Arg Thr Arg Val Ala Arg Glu Gln Gly Thr Val
 545 550 555

 Leu Leu Leu Trp Ser Gly Ala Asp Leu Arg Pro Val Ser Gly Pro
 560 565 570

 Asp Pro Arg Ala Ala Pro Leu Leu Ala Leu Leu His Ala Ala Pro
 575 580 585

 Arg Pro Leu Leu Leu Leu Ala Tyr Phe Ser Arg Leu Cys Ala Lys
 590 595 600

 Gly Asp Ile Pro Pro Leu Arg Ala Leu Pro Arg Tyr Arg Leu

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605 .	610	615
Leu Arg Asp Leu Pro Arg Leu Leu Arg Ala Leu Asp Ala Arg Pro		
620	625	630
Phe Ala Glu Ala Thr Ser Trp Gly Arg Leu Gly Ala Arg Gln Arg		
635	640	645
Arg Gln Ser Arg Leu Glu Leu Cys Ser Arg Leu Glu Arg Glu Ala		
650	655	660
Ala Arg Leu Ala Asp Leu Gly		
665		

<210> 17
<211> 2319
<212> DNA
<213> Homo Sapien

<400> 17
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cgttgttgtt cagtggagag cagggagtgg ggccagccag cagaaacagt 150
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tccagtgaaa aagcatgtga ttgctgacgc ccagaataatc accatcagcc 250
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cgcacaaactt cggcttccgt ttcttctatc ttcactacaa gctcaagcac 750
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<210> 18
<211> 728

<212> PRT

<213> Homo Sapien

<400> 18

Met	Pro	Arg	Ala	Ser	Ala	Ser	Gly	Val	Pro	Ala	Leu	Phe	Val	Ser	
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Gly	Glu	Gln	Gly	Val	Gly	Pro	Ala	Ser	Arg	Asn	Ser	Gly	Leu	Tyr	
				20					25						30
Asn	Ile	Thr	Phe	Lys	Tyr	Asp	Asn	Cys	Thr	Thr	Tyr	Leu	Asn	Pro	
									40						45
Val	Gly	Lys	His	Val	Ile	Ala	Asp	Ala	Gln	Asn	Ile	Thr	Ile	Ser	
					50				55						60
Gln	Tyr	Ala	Cys	His	Asp	Gln	Val	Ala	Val	Thr	Ile	Leu	Trp	Ser	
					65				70						75
Pro	Gly	Ala	Leu	Gly	Ile	Glu	Phe	Leu	Lys	Gly	Phe	Arg	Val	Ile	
					80				85						90
Leu	Glu	Glu	Leu	Lys	Ser	Glu	Gly	Arg	Gln	Cys	Gln	Gln	Leu	Ile	
					95				100						105
Leu	Lys	Asp	Pro	Lys	Gln	Leu	Asn	Ser	Ser	Phe	Lys	Arg	Thr	Gly	
					110				115						120
Met	Glu	Ser	Gln	Pro	Phe	Leu	Asn	Met	Lys	Phe	Glu	Thr	Asp	Tyr	
					125				130						135
Phe	Val	Lys	Val	Val	Pro	Phe	Pro	Ser	Ile	Lys	Asn	Glu	Ser	Asn	
					140				145						150
Tyr	His	Pro	Phe	Phe	Arg	Thr	Arg	Ala	Cys	Asp	Leu	Leu			
					155				160						165
Gln	Pro	Asp	Asn	Leu	Ala	Cys	Lys	Pro	Phe	Trp	Lys	Pro	Arg	Asn	
					170				175						180
Leu	Asn	Ile	Ser	Gln	His	Gly	Ser	Asp	Met	Gln	Val	Ser	Phe	Asp	
					185				190						195
His	Ala	Pro	His	Gly	Ser	Asp	Met	Gln	Val	Ser	Phe	Asp	His	Ala	
					200				205						210
Pro	His	Asn	Phe	Gly	Phe	Arg	Phe	Phe	Tyr	Leu	His	Tyr	Lys	Leu	
					215				220						225
Lys	His	Glu	Gly	Pro	Phe	Lys	Arg	Lys	Thr	Cys	Lys	Gln	Glu	Gln	
					230				235						240
Thr	Thr	Glu	Met	Thr	Ser	Cys	Leu	Leu	Gln	Asn	Val	Ser	Pro	Gly	
					245				250						255
Asp	Tyr	Ile	Ile	Glu	Leu	Val	Asp	Asp	Thr	Asn	Thr	Thr	Arg	Lys	
					260				265						270

Val Met His Tyr Ala Leu Lys Pro Val His Ser Pro Trp Ala Gly
 275 280 285
 Pro Ile Arg Ala Val Ala Ile Thr Val Pro Leu Val Val Ile Ser
 290 295 300
 Ala Phe Ala Thr Leu Phe Thr Val Met Cys Arg Lys Lys Gln Gln
 305 310 315
 Glu Asn Ile Tyr Ser His Leu Asp Glu Glu Ser Ser Glu Ser Ser
 320 325 330
 Thr Tyr Thr Ala Ala Leu Pro Arg Glu Arg Leu Arg Pro Arg Pro
 335 340 345
 Lys Val Phe Leu Cys Tyr Ser Ser Lys Asp Gly Gln Asn His Met
 350 355 360
 Asn Val Val Gln Cys Phe Ala Tyr Phe Leu Gln Asp Phe Cys Gly
 365 370 375
 Cys Glu Val Ala Leu Asp Leu Trp Glu Asp Phe Ser Leu Cys Arg
 380 385 390
 Glu Gly Gln Arg Glu Trp Val Ile Gln Lys Ile His Glu Ser Gln
 395 400 405
 Phe Ile Ile Val Val Cys Ser Lys Gly Met Lys Tyr Phe Val Asp
 410 415 420
 Lys Lys Asn Tyr Lys His Lys Gly Gly Arg Gly Ser Gly Lys
 425 430 435
 Gly Glu Leu Phe Leu Val Ala Val Ser Ala Ile Ala Glu Lys Leu
 440 445 450
 Arg Gln Ala Lys Gln Ser Ser Ala Ala Leu Ser Lys Phe Ile
 455 460 465
 Ala Val Tyr Phe Asp Tyr Ser Cys Glu Gly Asp Val Pro Gly Ile
 470 475 480
 Leu Asp Leu Ser Thr Lys Tyr Arg Leu Met Asp Asn Leu Pro Gln
 485 490 495
 Leu Cys Ser His Leu His Ser Arg Asp His Gly Leu Gln Glu Pro
 500 505 510
 Gly Gln His Thr Arg Gln Gly Ser Arg Arg Asn Tyr Phe Arg Ser
 515 520 525
 Lys Ser Gly Arg Ser Leu Tyr Val Ala Ile Cys Asn Met His Gln
 530 535 540
 Phe Ile Asp Glu Glu Pro Asp Trp Phe Glu Lys Gln Phe Val Pro
 545 550 555
 Phe His Pro Pro Pro Leu Arg Tyr Arg Glu Pro Val Leu Glu Lys

560 .	565	570
Phe Asp Ser Gly Leu Val Leu Asn Asp Val Met Cys Lys Pro Gly		
575	580	585
Pro Glu Ser Asp Phe Cys Leu Lys Val Glu Ala Ala Val Leu Gly		
590	595	600
Ala Thr Gly Pro Ala Asp Ser Gln His Glu Ser Gln His Gly Gly		
605	610	615
Leu Asp Gln Asp Gly Glu Ala Arg Pro Ala Leu Asp Gly Ser Ala		
620	625	630
Ala Leu Gln Pro Leu Leu His Thr Val Lys Ala Gly Ser Pro Ser		
635	640	645
Asp Met Pro Arg Asp Ser Gly Ile Tyr Asp Ser Ser Val Pro Ser		
650	655	660
Ser Glu Leu Ser Leu Pro Leu Met Glu Gly Leu Ser Thr Asp Gln		
665	670	675
Thr Glu Thr Ser Ser Leu Thr Glu Ser Val Ser Ser Ser Ser Gly		
680	685	690
Leu Gly Glu Glu Glu Pro Pro Ala Leu Pro Ser Lys Leu Leu Ser		
695	700	705
Ser Gly Ser Cys Lys Ala Asp Leu Gly Cys Arg Ser Tyr Thr Asp		
710	715	720
Glu Leu His Ala Val Ala Pro Leu		
725		

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